OAIS for CIOs

FLICC/CENDI Symposium
December 11, 2001

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CIO Function

- The Clinger-Cohen Act holds each Agency CIO responsible for developing, maintaining, and facilitating the implementation of an information technology architecture.
- Executive Order 13011, Federal Information Technology, established the Federal CIO Council as the principal interagency forum for improving practices in the design, modernization, employment, sharing, and performance of Agency information resources.

CIO Concerns Related to Information Storage and Retrieval

- Under the Government Paperwork Elimination Act (GPEA), Pub. L. No. 105-277, §§1701-1710 (1998) (codified as 44 U.S.C.A. § 3504 n. (West Supp. 1999)), Federal Executive agencies are required, by October 21, 2003, to provide for (1) "the option of the electronic maintenance, submission, or disclosure of information, when practicable, as a substitute for Paper…'
- Interoperability Reference Guide 1997 references standards organizations such as ISO, but was pre-OAIS and does not mention it specifically
- Enterprise Interoperability Committee has set up a Working Group on XML
- "Document repositories - their design and operation - will become a CIO Critical Success Factor over the next several years. Their importance in information technology (IT) architectures will be enormous." *(Document Management System Interoperability - The Need, The Answer: A White Paper for Federal Agency CIOs and IT Architects*, February 1998)

Circular A-130: Management of Federal Information Resources

- “Consider, at each stage of the information life cycle, the effects of decisions and actions on other stages of the life cycle” (8.a.1.(a))
- “Seek to satisfy new information needs through interagency or intergovernmental sharing of information…before creating or collecting new information” (8.a.1.(d))
- “Integrate planning for information systems with plans for resource allocation and use” (8.a.1.(e))
- “Use voluntary standards and Federal Information Processing Standards where appropriate or required” (8.a.1.(h))
- “Incorporate records management and archival functions into the design, development, and implementation of information systems” (8.a.1.(k))

Some Current Initiatives

- Enterprise Architecture
- E-Government

Enterprise Architecture

- Establishes the Agency-wide roadmap to achieve the Agency's mission through optimal performance of its core business processes within an efficient information technology (IT) environment.
- "Blueprint" for systematically and completely defining an organization's current (baseline) or desired (target) [IT] environment.
- Assists in optimizing the interdependencies and interrelationships among an organization's business operations and the underlying IT that support operations.

E-Government

- Concerned with things like e-commerce, internet exchange, collaborative environments, knowledge management, electronic information dissemination
- Looking for opportunities to have immediate and visible impact
- 2001 Cross Agency Portal proposals approved by the e-Government Committee of the CIO Council:
  - Service Locator Study (seniors), Common Portal Builder Tool, Virtual Home Center, Low Income, **Science.gov Deep Web Search, Science.gov database for browse function**, MapStats for Kids, Volunteers

How Does the OAIS Reference Model Relate?

- OAIS is relevant to CIO tools for interoperability and has implications for Enterprise Architecture. It could play a role in cross-agency portals and e-government.
  - ISO Standard
  - Provides a framework for sharing information about archives and repositories of electronic information
  - It can speed up interoperability
- Challenges:
  - How to raise awareness in the CIO community when the payoff is not immediate and visible? It needs a champion.
  - Need to overcome the impression that OAIS may appear to slow initial creation of archives and repositories
  - Need to promulgate where it applies and where it doesn't

(Disclaimer: These are my opinions and do not necessarily reflect policy of the NASA or GSFC CIO)